

a plurality of power amplifiers for driving the plurality of ink jet head units;

a plurality of flexible flat cables disposed between said plurality of power amplifiers and the plurality of ink jet head units for connecting the plurality of ink jet head units and said plurality of power amplifiers; and

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a drive waveform signal generating circuit for supplying a drive waveform signal to said plurality of power amplifiers and the plurality of ink jet head units,

wherein each of the plurality of ink jet head units has:

a switch device for supplying a piezoelectric element current to the plurality of piezoelectric elements,

wherein said plurality of power amplifiers are disposed corresponding to the plurality of ink jet head units, said plurality of power amplifiers supplying a drive waveform signal that is input from said drive waveform signal generating circuit to said plurality of power amplifiers through said plurality of flexible flat cables so as to drive the plurality of ink jet head units.

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7. (Three Times Amended) A piezoelectric element driving method for driving a plurality of piezoelectric elements disposed in a plurality of ink jet head units which are able to control velocity and size of ink droplets being proportional to an acceleration and intensity of deformation of the piezoelectric element, each of the plurality of ink jet head units has a plurality of power amplifiers for driving the plurality of ink jet head units, a plurality of flexible flat cables for connecting the plurality of ink jet head units and said plurality of power amplifiers, and a drive waveform signal generating circuit for supplying a drive waveform signal to the plurality of ink jet head units, the method comprising the steps of:

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driving the plurality of power amplifiers so as to amplify the drive waveform signal; and
causing the plurality of ink jet head units to spray large ink droplets, middle ink droplets,
or small ink droplets corresponding to the drive waveform signal that is output from the drive
waveform signal generating circuit,

wherein when the small ink droplets are sprayed, the time constant of the plurality of
power amplifiers that are driving allows the number of piezoelectric elements that are
simultaneously driven to become maximum.
